

- 1 1. A nucleic acid encoding a polypeptide that
2 (a) comprises a first amino acid sequence of at least 70 amino acids in length that
3 is identical to a region of a wild type HBV core protein; and
4 (b) lacks a second amino acid sequence of the wild type HBV core protein,
5 wherein the second sequence comprises the carboxyterminal three amino acids of the
6 wild type HBV core protein and does not exceed nine amino acids in length.

100 in 513 = 22 poly

A 3 100 # ten
aa, 5-1
no m/r
from 9 aa

- 1 2. The nucleic acid of claim 1, wherein the carboxyterminal amino acid of the
2 first amino acid sequence is selected from the group consisting of each of the amino acids
3 between position 174 and position 180 of SEQ ID NO: 12, inclusive. 23

- 1 3. A nucleic acid encoding a polypeptide that
2 (a) comprises a first amino acid sequence of at least 70 amino acids in length that
3 is identical to a region of a wild type hepadnavirus core protein;
4 (b) lacks a second amino acid sequence of the wild type hepadnavirus core
5 protein, wherein the second sequence comprises the carboxyterminal three amino acids of
6 the wild type hepadnavirus core protein; and
7 (c) comprises a third amino acid sequence that is identical to a portion of a wild
8 type hepadnavirus surface protein.

- 1 4. The nucleic acid of claim 3, wherein the second amino acid sequence does not
2 exceed 100 amino acids in length.

- 1 5. The nucleic acid of claim 3, wherein the carboxyterminal amino acid of the
2 first amino acid sequence corresponds to a position selected from the group consisting of
3 each of amino acids 71 to 180 of SEQ ID NO: 12, inclusive.

- 1 6. A nucleic acid encoding a polypeptide comprising
2 (a) a first amino acid sequence of at least 70 amino acids in length that is identical
3 to a region of a wild type hepadnavirus core protein; and

4 (b) a second amino acid sequence that is identical to a portion of a wild type
5 hepadnavirus surface protein.

1 7. A vector comprising the nucleic acid of claim 1.

1 8. A vector comprising the nucleic acid of claim 2.

1 9. A vector comprising the nucleic acid of claim 3.

1 10. A vector comprising the nucleic acid of claim 4.

1 11. A vector comprising the nucleic acid of claim 5.

1 12. A vector comprising the nucleic acid of claim 6.

1 13. A cultured host cell comprising the nucleic acid of claim 1.

1 14. A cultured host cell comprising the nucleic acid of claim 2.

1 15. A cultured host cell comprising the nucleic acid of claim 3.

1 16. A cultured host cell comprising the nucleic acid of claim 4.

1 17. A cultured host cell comprising the nucleic acid of claim 5.

1 18. A cultured host cell comprising the nucleic acid of claim 6.